

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

The Delphion Integrated View

Buy Now: [PDF](#) | [More choices...](#)Tools: Add to Work File: [Create new Work File](#) [Go](#)View: [INPADOC](#) | Jump to: [Top](#) [Email this to a friend](#)

>Title: **JP2000228193A2: CARBONACEOUS NEGATIVE ELECTRODE ACTIVE MATERIAL FOR NONAQUEOUS SECONDARY BATTERY AND NONAQUEOUS SECONDARY BATTERY**

Country: **JP Japan**

Kind: **A2 Document Laid open to Public inspection**

Inventor: **KINOSHITA SHINICHI;
OKAHARA KENJI;
KATO AKIO;
YAMAGUCHI SHOJI;**

[View Image](#)

1 page



Assignee: **MITSUBISHI CHEMICALS CORP**
[News, Profiles, Stocks and More about this company](#)

Published / Filed: **Aug. 15, 2000 / Feb. 4, 1999**

Application Number: **JP1999000026819**

IPC Code: **H01M 4/58; H01M 4/02; H01M 10/40; C01B 31/02;**

Priority Number: **Feb. 4, 1999 JP1999000026819**

Abstract: **Problem to be solved:** To provide a negative electrode active material having a high capacity and excellent efficiency, and a nonaqueous secondary battery using it.

Solution: This carbonaceous negative electrode active material is composed of a mixture of at least graphite and fired carbon. The fired carbon has such a pore distribution by a BET adsorption method of gaseous nitrogen that pores having diameters below 8 Å exist as many as 2×10^{-4} CC/g or more, and that pores having diameters in the range of 8-18 Å exist as many as 15×10^{-4} CC/g or less, and the fired carbon is obtained, for example, by executing a first heat treatment at 250-650°C under an inert gas atmosphere and second heating treatment at 700-1,500°C under an inert gas atmosphere of fine powdery carbonaceous material. This nonaqueous secondary battery has a negative electrode in which this carbonaceous negative electrode active material is used.

COPYRIGHT: (C)2000,JPO

Family: [Show 2 known family members](#)

Other Abstract Info: **CHEMABS 133(12)166262B CHEMABS 133(12)166262B DERABS C2000-596944 DERABS C2000-596944**

 **Inquire
Regarding
Licensing**


CHI
RESEARCH INC.
Business Intelligence Reports


\$10 Off
Handcrafted
Plaques
Order Today!


**Gallery of
Obscure
Patents**

[Nominate](#)

[this for the Gallery...](#)



(19)

(11) Publication number: 2000228193 A

Generated Document.

PATENT ABSTRACTS OF JAPAN

(21) Application number: 11026819

(51) Int'l. Cl.: H01M 4/58 H01M 4/02 H01M 10/40

(22) Application date: 04.02.99

(30) Priority:

(43) Date of application
publication: 15.08.00(84) Designated contracting
states:

(71) Applicant: MITSUBISHI CHEMICALS CORP

(72) Inventor: KINOSHITA SHINICHI
OKAHARA KENJI
KATO AKIO
YAMAGUCHI SHOJI

(74) Representative:

**(54) CARBONACEOUS
NEGATIVE ELECTRODE
ACTIVE MATERIAL FOR
NONAQUEOUS SECONDARY
BATTERY AND
NONAQUEOUS SECONDARY
BATTERY**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a negative electrode active material having a high capacity and excellent efficiency, and a nonaqueous secondary battery using it.

SOLUTION: This carbonaceous negative electrode active material is composed of a mixture of at least graphite and fired carbon. The fired carbon has such a pore distribution by a BET adsorption method of gaseous nitrogen that pores having diameters below 8 Å exist as many as 2×10^{-4} CC/g or more, and that pores having diameters in the range of 8-18 Å exist as many as 15×10^{-4} CC/g or less, and the fired carbon is obtained, for example, by executing a first heat treatment at 250-650°C under an inert gas atmosphere and second

heating treatment at 700-1,500°C under an inert gas atmosphere of fine powdery carbonaceous material. This nonaqueous secondary battery has a negative electrode in which this carbonaceous negative electrode active material is used.

COPYRIGHT: (C)2000,JPO